What is claimed is:

1   1. A process for collecting usage data and generating metrics that measure use in a usage-
2   based resource licensing system to measure usage of one or more resources by distributed clients,
3   comprising:
4   1) using a monitoring or agent program installed on one or more distributed
5   computers of licensees to collect usage data for usage of one or more resources installed on said
6   one or more computers;
7   2) transmitting said usage data to a usage measuring server from time to time;
8   3) receiving and storing in a data structure in said usage measuring server said
9   usage data collected by all said monitoring or agent programs to create buffers of raw usage data
10   that store all usage data of all resources by all licensees, each said buffer of raw usage data
11   containing data recording use of one resource by one licensee;
12   4) for each buffer of raw usage data of one resource by one user, using the
13   appropriate distillation program to convert the raw usage data into metric data and storing said
14   metric data in said data structure; and
15   5) allowing authorized persons access to at least said metric data, and preparing
16   reports or invoices based upon use reflected in said metric data.

1   2. The process of claim 1 further comprising a step wherein authorized persons may access
2   said metric data over the internet through use of a browser on the authorized person's computer
3   which interacts with a web interface implemented by said usage measuring server or via any other
4   wide area network or by direct dial up access.

1   3. The process of claim 2 wherein said usage measuring server implements steps to control
2   access by said authorized persons so that said authorized persons are only allowed access to
3   predetermined metric data and/or raw usage data such that said authorized persons cannot have
4   access to confidential business information of other users, vendors or distributors who have usage
5   data stored in said data structure.

1   4. The process of claim 3 wherein said usage measuring server is programmed to require a
2   user name and password to log in for access to metric and/or usage data, and wherein said usage
3   measuring server is programmed to use said user name and password to authenticate the identity of
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4   a user who has logged in and use said identity to consult configuration data that controls which

5   metrics and/or raw usage data or metrics alone or metrics in combination with CSU units or CSU

6   units alone to which said user may have access.

1   5. The process of claim 1 wherein said usage measuring server directly or indirectly sends

2   data to said agent programs from time to time to control what types of usage data are collected and

3   indicating which resources still are authorized for use such that continued use of a resource whose

4   license has expired or for which a licensee has not honored the terms of its license may be blocked.

1   6. The process of claim 1 wherein said usage data is stored in a manner or with

2   accompanying data which indicates the time when said usage occurred, and wherein said usage data

3   is stored in separate logical time compartments, each representing usage over one time interval in a

4   sequence of said time intervals.

1   7. The process of claim 6 where the duration of one said time compartment is programmable.

1   8. The process of claim 6 wherein the duration of a said time compartment is programmable.

1   9. The process of claim 7 wherein the duration of said sequence of said time compartment is

2   programmable.

1   10. The process of claim 6 wherein step 4 comprises using said distillation program to

2   process the usage of each time compartment or logical compartment to generate metrics for each

3   said time compartment.

1   11. The process of claim 6 wherein step 4 comprises using said distillation program on a

2   fixed schedule to process the usage data in each time compartment.

1   12. The process of claim 6 wherein step 4 comprises processing each time compartment of

2   usage data by following pointer data to the appropriate distillation program for the resource to which

3   the usage data pertains and using that distillation program to process the usage data in the time

4   compartment, and repeating this step for every time compartment of every usage data buffer.

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1   13. The process of claim 6 further comprising the step of executing a CSU distillation or
2 mapping program at least once during every larger interval of which each said time compartment is a
3 part and processing the metrics calculated for each time compartment into CSU units.

1   14. The process of claim 6 wherein step 4 comprises processing usage data from a time
2 compartment using the appropriate distillation program multiple times during the interval represented
3 by said time compartment.

1   15. The process of claim 14 wherein each time said distillation program is run during the
2 interval represented by said time compartment, all the usage data stored in said time compartment
3 that has been stored before the time of execution of said distillation program is input to said distillation
4 program such that the metrics for said time compartment are restated to include all the new usage
5 data stored since the last execution of said distillation program.

1   16. A process for collecting usage data and generating metrics that measure use in a usage-
2 based resource licensing system to measure usage of one or more resources by distributed clients,
3 comprising steps for:
4   1) using a monitoring or agent program installed on one or more distributed
5   computers of licensees to collect usage data for usage of one or more resources installed on
6   said one or more computers;
7   2) transmitting said usage data to a usage measuring server from time to time;
8   3) receiving and storing in a data structure in said usage measuring server said
9   usage data collected by all said monitoring or agent programs to create buffers of raw usage
10   data that store all usage data of all resources by all licensees, each said buffer of raw usage
11   data containing data recording use of one resource by one licensee, said usage data being
12   segregated into logical or physical time compartments, each storing the usage data for usage
13   during one time interval in a larger interval comprised of a sequence of contiguous ones of
14   said time intervals;
15   4) for each buffer of raw usage data of one resource by one user, using the
16   appropriate distillation program to convert the raw usage data into metric data for each said
17   time compartment of each said usage buffer and storing said metric data in said data
18   structure; and
19   5) if requested or scheduled, summarizing the metrics generated for each time
20   interval during said larger interval.

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1   17. The process of claim 16 wherein the length of said larger interval is programmable and

2 determined by reading configuration data.

1   18. The process of claim 16 wherein the number of times said distillation program is run

2 during a time interval represented by a time compartment to convert usage data from said time

3 compartment into metrics is programmable and the method by which said distillation program distills

4 said usage data with regard to whether the distillation program processes only new data or both new

5 and old data is programmable.

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